

D1
42 (Twice amended). A purified polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. 102

D2
44 (Twice amended). The polypeptide of claim 42 which comprises at least fifteen amino acids. 102

Sub E1
45 (Twice amended). A purified polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten contiguous amino acids of SEQ ID NO:5, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. 112/3

D3 Sub E1
47 (Twice amended). The polypeptide of claim 45 which comprises at least fifteen amino acids. 112/3
p. 38, last line

48 (Twice amended). A prophylactic or therapeutic vaccine comprising an immunologically effective amount of a recombinant polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. 102

D4
50 (Twice amended). The vaccine of claim 48 or 79 wherein said polypeptide comprises at least fifteen amino acids. 112/3
102

D4
cancel

112

51 (Twice amended). The vaccine of claim 48 or 79 further comprising an immunologically effective amount of a second polypeptide of the *Helicobacter pylori* heat shock protein, which second polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity.

103

D5

53 (Twice amended). The vaccine of claim 51 wherein said second polypeptide comprises at least fifteen amino acids.

102
103

Sub E8

54 (Twice amended). A prophylactic or therapeutic vaccine comprising an immunologically effective amount of a recombinant polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten contiguous amino acids of SEQ ID NO:5, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity.

112/5

D6

56 (Twice amended). The vaccine of claim 54 wherein said polypeptide comprises at least fifteen amino acids.

112/5

Sub E9

57 (Twice amended). The vaccine of claim 54 further comprising an immunologically effective amount of a second polypeptide of the *Helicobacter pylori* heat shock protein, which second polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity.

112/5

59 (Twice amended). The vaccine of claim 57 wherein said second polypeptide comprises at least fifteen amino acids. 112/3

60 (Twice amended). A method of preparing a prophylactic or therapeutic vaccine comprising bringing into association:

- (1) an immunologically effective amount of a purified polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity, and
(2) a pharmaceutically acceptable carrier. 102

61 (Twice amended). The method of claim 60 or 77 further comprising adding an immunologically effective amount of a second polypeptide of the *Helicobacter pylori* heat shock protein, which second polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. 103

62 (Twice amended). A method of preparing a prophylactic or therapeutic vaccine comprising bringing into association:

- (1) an immunologically effective amount of a purified polypeptide of the *Helicobacter pylori* CAI antigen amino acid, which polypeptide: (i) comprises at least ten contiguous amino acids of SEQ ID NO:5, (ii) can be used to induce the production of antibodies to *Helicobacter* 112/3

pylori, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity, and
(2) a pharmaceutically acceptable carrier.

D7
could
Sub E12

63 (Twice amended). The method of claim 62 or 78 further comprising adding an immunologically effective amount of a second polypeptide of the *Helicobacter pylori* heat shock protein, which second polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. 112/1

D8
Sub E12

70 (Amended). The vaccine of claim 48 or 79, further comprising an immunologically effective amount of a second polypeptide, wherein said second polypeptide is of the *Helicobacter pylori* cytotoxin (CT) protein, and (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits substantially no toxicity, or substantially reduced toxicity. 103

D9

71 (New). A recombinant polypeptide of the *Helicobacter pylori* CAI antigen. 102

72 (New). A recombinant polypeptide of the *Helicobacter pylori* CAI antigen comprising SEQ ID NO:5. 102

73 (New). A recombinant polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. 102

74 (New). The polypeptide of claim 73 which comprises at least fifteen amino acids. 102
4/2

*DP
correl*
*Sub
E13*
75 (New). A recombinant polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten contiguous amino acids of SEQ ID NO:5, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity. new
112/I

76 (New). The polypeptide of claim 75 which comprises at least fifteen amino acids. 112/I

77 (New). A method of preparing a prophylactic or therapeutic vaccine comprising bringing into association:

- 102
- (1) an immunologically effective amount of a recombinant polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten amino acids, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no functional contribution to toxicity, or a substantially reduced functional contribution to toxicity, and
 - (2) a pharmaceutically acceptable carrier.

78 (New). A method of preparing a prophylactic or therapeutic vaccine comprising bringing into association:

- Sub
E14*
new
- (1) an immunologically effective amount of a recombinant polypeptide of the *Helicobacter pylori* CAI antigen, which polypeptide: (i) comprises at least ten contiguous amino acids of SEQ ID NO:5, (ii) can be used to induce the production of antibodies to *Helicobacter pylori*, and (iii) exhibits no
- 112/5